

[54] **CHEMICAL CONVERSION FOR ION MOBILITY DETECTORS USING SURFACE INTERACTIONS**

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[57] **ABSTRACT**

An ion mobility detector in which selectivity and sensitivity is enhanced by converting through surface interactions sample gas or vapor to a form more readily ionized or by converting through surface interactions interferent gas or vapor to a form less readily ionized. To accomplish the conversion, samples may be passed through a catalytically reactive filter prior to injection into the detector reaction region; exposed to a reactive coating placed on the surface of a permeable membrane prior to diffusion therethrough into the reaction region or exposed to a reactive coating placed on the interior walls of the reaction region.

8 Claims, 5 Drawing Figures

